

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* RANDALL G. SMITH and TIMOTHY J. MARTELL

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Appeal 2007-3134  
Application 09/746,754  
Technology Center 2800

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Decided: November 6, 2007

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Before JOHN C. MARTIN, HOWARD B. BLANKENSHIP, and JOHN A.  
JEFFERY, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 41, 42, and 44-53. Claims 1-40 and 43 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b), and we heard the appeal on October 24, 2007. We affirm-in-part and enter a new ground of rejection under 37 C.F.R. § 41.50(b).

## STATEMENT OF THE CASE

Appellants invented a method for initiating calibration of an electronic whiteboard. Specifically, the calibration process for the whiteboard is initiated at a location distant from the computer. The invention, unlike conventional processes, does not require initiating calibration at the computer.<sup>1</sup> Claim 41 is illustrative with the key limitation in dispute emphasized:

41. In a calibration process for a whiteboard system comprising the steps of (i) providing a whiteboard, (ii) providing a computer, (iii) providing a display device in communication with the computer, (iv) initiating the calibration process, wherein the calibration process includes the steps of projecting an image onto the whiteboard, detecting a touch at a point on the whiteboard corresponding to the projected image, and calculating a relationship between the touched point on the whiteboard corresponding to the projected image and a position on the display device, and (v) performing the calibration of positions between the whiteboard and the computer, the improvement comprising the step of *initiating the calibration process at a location distant the computer*.

The Examiner relies on the following prior art reference to show unpatentability:

SMART Technologies, Inc., *SMART Board Installation Guide*, 1998 (“SMART Board”).

Claims 41, 42, and 44-53 stand rejected under 35 U.S.C. § 102(b) as being anticipated by SMART Board.

Rather than repeat the arguments of Appellants or the Examiner, we refer to the Briefs and the Answer for their respective details. In this decision, we have considered only those arguments actually made by

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<sup>1</sup> See generally Specification 2:5-18.

Appellants. Arguments which Appellants could have made but did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

## OPINION

### *Independent Claim 41*

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984); *W.L. Gore and Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554 (Fed. Cir. 1983).

The Examiner has indicated how the claimed invention is deemed to be fully met by the disclosure of SMART Board (Answer 3-6). Regarding the independent claim 41, Appellants argue that SMART Board does not *initiate* the calibration process at a location *distant the computer* as claimed. Appellants emphasize that “initiating” the calibration process means to *begin* the calibration process. According to Appellants, the next step after “initiating” is the calibration process itself -- a process that Appellants contend includes at least three steps: (1) projecting a calibration image onto a whiteboard; (2) detecting the user’s touches on the whiteboard in accordance with instructions; and (3) calculating a relationship between the touched point(s) on the whiteboard corresponding to the projected calibration image and the position(s) of the display device (Br. 12-14; Reply Br. 5-9).

With this interpretation, Appellants contend that SMART Board does not initiate the calibration process at a location distant the computer since the step of the SMART Board orientation process that occurs immediately before projecting a calibration image onto the whiteboard (i.e., Step 4 (clicking the “Next” button)) occurs *at the computer* -- not distant from the computer as claimed. Although Appellants concede that Step 1 (selecting “Orient Board” from the Board menu) can occur distant the computer, Appellants nevertheless emphasize that the user still has three more steps (Steps 2-4) to complete *at the computer* before the system projects a calibration image onto the board (Br. 8). Because Step 4 -- a step that occurs at the computer -- must occur before the calibration process begins, Appellants conclude that the reference does not initiate the calibration process distant the computer as claimed (Br. 12-14; Reply Br. 7-9).

The Examiner responds that, in view of the Specification, the initiation limitation should not be limited to only the step before displaying a graphical user interface as Appellants contend (Answer 7-8). The Examiner adds that Step 1 of SMART Board’s orientation process comprises four options, each of which are performed at the whiteboard and therefore distant the computer (Answer 8, 10).

At the outset, we note that claim 41 is drafted in Jepson format which recites the sole improvement as the step of initiating the calibration process at a location distant the computer.<sup>2</sup> Also, it is undisputed that Steps 2-4 of SMART Board’s orientation procedure occur at the computer. It is also

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<sup>2</sup> Nevertheless, it is undisputed that SMART Board discloses all limitations of claim 41 prior to the improvement clause (i.e., steps (i)-(v)). See Answer, at 3.

undisputed that Step 1 can occur distant the computer (i.e., at the board).

The issue before us, then, is whether Step 1 reasonably constitutes “initiating the calibration process.” For the following reasons, we conclude that it does.

As the Examiner and Appellant indicate, the key aspect of SMART Board relevant to this appeal is the orientation procedure on Pages 27 and 28 of the reference. For clarity, the relevant sequence of this orientation procedure is summarized below:

Step	Description	Location of Occurrence
1	Select “Orient Board” from the “Board” menu	Whiteboard or computer
<i>Dialog box prompting the user to pick the orientation precision appears<sup>3</sup></i>		
2	Preview three orientation levels (Quick, Standard, or Fine)	Computer
3	Select desired orientation level	Computer
4	Click “Next” button	Computer
<i>Rectangular image displayed on SMART Board screen in accordance with the selected orientation level</i>		
5	User presses finger on various points on screen in accordance with instructions	Whiteboard

Table 1: Relevant Sequence of the Orientation Procedure of SMART Board

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<sup>3</sup> SMART Board does not indicate whether this dialog box appears at the whiteboard, the computer, or both. This is a significant ambiguity because if the dialog box were projected on the whiteboard, it would appear to constitute the recited “step of projecting an image onto the whiteboard” in claim 46. When asked about this point at the oral hearing, Appellants’ representative indicated that the dialog box appeared to be displayed at the computer -- not the whiteboard. While the reference is ambiguous on this point, when the dialog box display is considered together with the preview function of Step 2 (which is performed at the computer), we presume that the dialog box is displayed at least at the computer.

As shown above, the rectangular image that is displayed following Step 4 provides the requisite area in which the user performs the orientation process by pressing on various displayed points. As Appellants indicate, Steps 2-4 are performed at the computer.

But the calibration process as claimed does not necessarily have to begin after Step 4 as Appellants contend. The non-limiting language of claim 41 amply evidences this conclusion. Claim 41 recites the calibration process “*includes*” the recited projecting, detecting, and calculating steps. In short, the open-ended nature of the term “includes” simply does not preclude additional steps.<sup>4</sup>

Although Appellants contend that “calibration” and “initiating calibration” have been defined in the Specification (Br. 9-10), we do not find that these cited passages tantamount to a special definition so as to dictate the scope and meaning of these terms in a way different than they would otherwise possess.<sup>5</sup> Rather, these passages merely describe preferred embodiments that hardly expressly or implicitly<sup>6</sup> define the terms.

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<sup>4</sup> Indeed, the preamble itself suggests that the calibration process is not limited to the projecting, detecting, and calculating steps. Specifically, the preamble recites: “In a calibration process...*comprising*....” The claim then recites five enumerated steps ((i)-(v)). These steps include, among other things, the physical acts of providing a whiteboard and a computer as well as the initiation step itself.

<sup>5</sup> See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (“[T]he specification may reveal a special definition given to a claim term that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.”).

<sup>6</sup> See *id.*, at 1321 (“Even when guidance is not provided in explicit definitional format, the specification may define claim terms by implication such that the meaning may be found in or ascertained by a reading of the patent documents.”) (citations omitted).

Significantly, the claim does not recite that the calibration process “consists of” the projecting, detecting, and calculating steps. Nor does the claim specify that the *first* step of the calibration process is the projecting step.

Therefore, nothing in the claim precludes the recited “calibration process” from being read on the calibration process of SMART Board, including Steps 2-4 (along with Step 5). Steps 2-4 dictate the orientation level -- a significant feature of the orientation procedure. As such, we find that Step 1 therefore initiates this calibration process -- a step that can occur at the whiteboard.

Claim 41 is therefore fully met by SMART Board. Accordingly, the Examiner’s rejection of that claim is sustained.

#### *Claims 42 and 44*

We will also sustain the Examiner’s rejection of claims 42 and 44. As we indicated previously, we find that Step 1 of SMART Board initiates the calibration process. Furthermore, Step 1 includes, among other things, the user pressing a button on the screen or pressing and holding two buttons simultaneously -- functions that occur distant the computer. This pushbutton functionality fully meets “detecting a touch in proximity to the whiteboard” – a fact amply evidenced by merely comparing dependent claim 44 (further limiting “the touch in proximity to the whiteboard” to pushing a button).



*Claim 45*

We will also sustain the Examiner's rejection of claim 45. Although Appellants contend that SMART Board does not disclose a "remote control device," let alone pushing a button of a remote control device (Br. 16; Reply Br. 11), the scope and breadth of the limitation simply do not preclude the whiteboard's pushbutton functionality of Step 1 noted above.<sup>7</sup>

After pushing of the button(s) in Step 1 of SMART Board's orientation procedure, the dialog box appears that prompts the user to pick the orientation level. Assuming that this dialog box appears at the computer,<sup>8</sup> the very act of pushing the button, in effect, controls the display of this dialog box at the computer. Therefore, the whiteboard and its buttons effectively constitute a "remote control device" at least with respect to the computer.

For at least these reasons, claim 45 is fully met. The Examiner's rejection is therefore sustained.

*Independent Claim 46*

We will not, however, sustain the Examiner's rejection of independent claim 46. Unlike independent claim 41, claim 46 calls for, in pertinent part, the step of initiating the calibration process to be a *one-step* process, *directly after which* the step of projecting an image onto the whiteboard occurs.

Although Step 1 of SMART Board's orientation procedure is certainly a one-step process, the step of projecting an image onto the whiteboard does

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<sup>7</sup> Significantly, the claim does not recite a "*handheld* remote control device," but rather merely recites a "remote control device" broadly.

<sup>8</sup> See n.3, *supra*, of this opinion.

not necessarily occur *directly after* Step 1. First, it is unclear, at best, whether the dialog box prompting the user to pick the orientation level appears at the whiteboard.<sup>9</sup> Second, Steps 2-4 each occur at the computer prior to projecting the calibration image used in Step 5.

Therefore, projecting the calibration image in SMART Board does not necessarily occur *directly after* initiating the calibration process (Step 1). For this reason alone, we cannot sustain the Examiner's anticipation rejection of independent claim 46 or claims 47-49 dependent thereon.<sup>10</sup>

#### *Independent Claim 50*

We will also not sustain the Examiner's rejection of independent claim 50 for similar reasons. Claim 50, however, contains certain limitations which are independently significant. Claim 50 calls for, in pertinent part, projecting a calibration image onto the whiteboard to be *directly preceded by* signaling the whiteboard system to project the calibration image -- a signaling step which must occur distant the computer. Although the signaling step (Step 1) in SMART Board precedes the projection of the calibration image, it does not necessarily *directly* precede this image projection for the reasons previously discussed.

For at least these reasons, we cannot sustain the Examiner's rejection of independent claim 50 or claims 51-53 dependent thereon.<sup>11</sup>

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<sup>9</sup> *See id.*

<sup>10</sup> Nevertheless, we conclude that claims 46-49 are unpatentable under 35 U.S.C. § 103 in a new ground of rejection. *See* p. 11, *infra*, of this opinion.

<sup>11</sup> *But cf.* p. 11, *infra*, of this opinion (rejecting claims 50-53 under § 103).

***New Ground of Rejection Under 37 C.F.R. § 41.50(b)***

Under 37 C.F.R. § 41.50(b), we enter a new ground of rejection under 35 U.S.C. § 103 for claims 46-53.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 46-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over SMART Board.

Regarding independent claim 46, SMART Board discloses all of the claimed subject matter except for projecting an image onto the whiteboard to occur *directly after* initiating the calibration process (i.e., Step 1). Regarding independent claim 50, SMART Board discloses all of the claimed subject matter except for projecting a calibration image onto the whiteboard to be *directly preceded by* signaling the whiteboard system to project the calibration image (i.e., Step 1).

Although Steps 2-4 of the orientation procedure of SMART Board (associated with previewing and selecting the desired orientation level) occur between Step 1 and the image displayed prior to Step 5, providing a *single, default orientation level* in lieu of multiple orientation levels would have been a modification well within the level of ordinary skill in the art. That is, providing a single, default orientation level in SMART Board would

automatically launch the calibration image using a predefined orientation level directly after Step 1 (i.e., effectively bypassing Steps 2-4).

As a result, the user would not need to preview the orientation levels and select a desired orientation level (i.e., Steps 2-4) each time the whiteboard is oriented -- a potentially cumbersome process for users that consistently select the same orientation level. In short, this default feature would bypass Steps 2-4 and therefore display the calibration image (i.e., the image displayed just prior to Step 5) directly after Step 1.

Therefore, it would have been obvious to the skilled artisan at the time of the invention to provide a default orientation level in the orientation procedure of SMART Board in lieu of selecting a desired orientation level from multiple levels. Such a feature would automatically launch the calibration image using a predefined orientation level, thereby obviating the need for users to perform a potentially cumbersome and time-consuming preview and selection process each time the whiteboard is oriented.

Regarding dependent claims 47-49 and 51-53, the scope and breadth of the “remote control” limitation simply does not preclude the whiteboard’s pushbutton functionality of Step 1. After the button(s) are pushed in Step 1 of SMART Board’s orientation procedure, the dialog box appears that prompts the user to pick the orientation level. Assuming that this dialog box appears at the computer,<sup>12</sup> the very act of pushing the button, in effect, controls the display of this dialog box at the computer. Therefore, the whiteboard and its buttons effectively constitute a “remote control device” at least with respect to the computer.

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<sup>12</sup> See n.3, *supra*, of this opinion.

## DECISION

We have sustained the Examiner's rejection of claims 41, 42, 44, and 45. Although we have not sustained the Examiner's rejection of claims 46-53, we have entered a new ground of rejection under 37 C.F.R. § 41.50(b) (2007) for these claims under 35 U.S.C. § 103.

Regarding the affirmed rejection(s), 37 C.F.R. § 41.52(a)(1) provides that "Appellant may file a single request for rehearing within two months from the date of the original decision of the Board."

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b), which (amended effective Sept. 13, 2004, by final rule notice 69 Fed. Reg. 49,960 (Aug. 12, 2004), 1286 Off. Gaz. Pat. Office 21 (Sept. 7, 2004)). 37 C.F.R. § 41.50(b) provides that "[a] new ground of rejection . . . shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.*

Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART  
37 C.F.R. § 41.50(b)

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